

[FIG.1]

- 100 CENTER STATION
- 110 HEAD OFFICE WIRELESS LAN NETWORK SYSTEM
- 120 BRANCH OFFICE WIRELESS LAN NETWORK SYSTEM
- 5 130 PUBLIC WIRELESS LAN NETWORK SYSTEM

[FIG.2]

- 116 RADIO TERMINAL APPARATUS
- 114 ACCESS POINT SECTION
- 10 111 GATEWAY APPARATUS
- 101 CENTER STATION GATEWAY APPARATUS
- 102 AUTHENTICATION SERVER
- 802.11 ASSOCIATION
- CONNECTION CHECK (NOT CONNECTED)
- 15 EAP SEQUENCE
- WEP KEY NOTIFICATION
- WEP KEY NOTIFICATION
- WEP KEY GENERATION
- WEP KEY SAVING

20

[FIG.3]

- 114 ACCESS POINT SECTION
- 301 DATA TRANSMISSION/RECEPTION SECTION
- 302 SWITCHING SECTION
- 25 305 USER ACCESS CONTROL SECTION
- 306 WEP KEY CONTROL SECTION
- 303 SWITCHING SECTION
- 304 DATA TRANSMISSION/RECEPTION SECTION

101 CENTER STATION GATEWAY APPARATUS

[FIG.4]

116 RADIO TERMINAL APPARATUS

5 124 ACCESS POINT SECTION

121 GATEWAY APPARATUS

101 CENTER STATION GATEWAY APPARATUS

102 AUTHENTICATION SERVER

802.11 ASSOCIATION

10 CONNECTION CHECK (NOT CONNECTED)

SAVED WEP KEY NOTIFICATION

[FIG.5]

124 ACCESS POINT SECTION

15 301 DATA TRANSMISSION/RECEPTION SECTION

302 SWITCHING SECTION

501 USER ACCESS CONTROL SECTION

502 ACCESS TIME CONTROL SECTION

503 COMMUNICATION PACKET AMOUNT CONTROL SECTION

20 306 WEP KEY CONTROL SECTION

303 SWITCHING SECTION

304 DATA TRANSMISSION/RECEPTION SECTION

101 CENTER STATION GATEWAY APPARATUS

25 [FIG.6]

116 RADIO TERMINAL APPARATUS

124 ACCESS POINT SECTION

500 GATEWAY APPARATUS

101 CENTER STATION GATEWAY APPARATUS
102 AUTHENTICATION SERVER
INITIAL AUTHENTICATION
CONNECTION TIME, PACKET AMOUNT COUNTER START
5 COMMUNICATION (WEP ENCRYPTED BETWEEN MOBILE TERMINAL AND
AP)
COUNTER OVER
REQUEST FOR STARTING PROCEDURE FOR REAUTHENTICATION, WEP
KEY REDISTRIBUTION
10 CONNECTION CHECK (REAUTHENTICATION STATE)
EAP SEQUENCE
WEP KEY NOTIFICATION
WEP KEY NOTIFICATION
WEP KEY GENERATION
15 SAVE NEW WEP KEY
CONNECTION TIME, PACKET AMOUNT COUNTER START
COMMUNICATION (NEW WEP ENCRYPTED BETWEEN MOBILE TERMINAL
AND AP)
20 [FIG.7]
ACCESS POINT SECTION
701 WIRELESS LAN I/F
EAP AUTHENTICATION
USER ID
25 703 EAP CLIENT
WEP ENCRYPTION
704 WEP CLIENT

[FIG.8]

CELLULAR RADIO BASE STATION

ACCESS POINT SECTION

801 CELLULAR RADIO I/F

5 CELLULAR AUTHENTICATION

CELLULAR ENCRYPTION

802 CELLULAR AUTHENTICATION CLIENT

USER ID

USER ID

10 701 WIRELESS LAN I/F

EAP AUTHENTICATION

703 EAP CLIENT

WEP ENCRYPTION

704 WEP CLIENT